

GP-304192

HYBRID TRANSMISSION MEMBER SPEED DETERMINATION, SENSOR DIAGNOSTICS AND FAULT RECOVERY

ABSTRACT OF THE DISCLOSURE

A hybrid powertrain has a transmission including a motor and a sensor for sensing rotation of the transmission output member. Motor speed signals are available from the motor controller. Speed signals representative
5 of output speed are calculated from both the speed sensor and the motor speed in conjunction with known speed relationships between the motor and the output. A variety of in-range and dropped signal diagnostics is performed for the sensors and are used in the development of a set of software switches for selecting which of the speed sources is used as the output speed.